PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner
US Department of Commerce
United States Patent and Trademark Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 04 September 2001 (04.09.01)	
International application No. PCT/US00/18683	**Applicant's or agent's file reference** 99-1200PCT
International filing date (day/month/year) 07 July 2000 (07.07.00)	**Priority date** (day/month/year) 09 July 1999 (09.07.99)
Applicant WLODARCZYK, Marek, T. et al	

1. The designated Office is hereby notified of its election made:

[X] in the demand filed with the International Preliminary Examining Authority on:

09 February 2001 (09.02.01)

[ ] in a notice effecting later election filed with the International Bureau on:

2. The election [X] was

[ ] was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Farid ABBOU

Telephone No.: (41-22) 338.83.38

RECD 23 AUG 2001
WIPO PCT

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
99-1200PCT		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US00/18683	07 JULY 2000	09 JULY 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): G01L 9/00 and US Cl.: 73/705		
Applicant WLODARCZYK, MAREK T.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets.

   [X] This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

   - I [X] Basis of the report
   - II [ ] Priority
   - III [ ] Non-establishment of report with regard to novelty, inventive step or industrial applicability
   - IV [ ] Lack of unity of invention
   - V [X] Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI [ ] Certain documents cited
   - VII [ ] Certain defects in the international application
   - VIII [ ] Certain observations on the international application

Date of submission of the demand	Date of completion of this report
09 FEBRUARY 2001	30 JUNE 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer Sharon S. Hoppe WILLIAM OEN
Facsimile No. (703) 305-3230	Telephone No. (703) 308-5161

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US00/18683

I. Basis of the rep rt

1. With regard to the elements of the international application:*

☐ the international application as originally filed

☒ the description:
pages 1-5 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of

☒ the claims:
pages 6 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of

☒ the drawings:
pages NONE , as originally filed
pages 1-2 , filed with the demand
pages NONE , filed with the letter of

☒ the sequence listing part of the description:
pages NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the writen sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

☒ the description, pages NONE

☒ the claims, Nos. NONE

☒ the drawings, sheets/~~fig~~ NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US00/18683

V. Reas ned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanati ns supporting such statement

1. statement

Novelty (N)	Claims	1-4	YES
	Claims	NONE	NO
Inventive Step (IS)	Claims	1-4	YES
	Claims	NONE	NO
Industrial Applicability (IA)	Claims	1-4	YES
	Claims	NONE	NO

2. citations and explanations (Rule 70.7)

Claims 1-4 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the claimed fiber optic diaphragm sensor and housing configuration wherein the claimed choice of ferrule material and bonding material have differing thermal expansion coefficients.

NEW CITATIONS

NONE

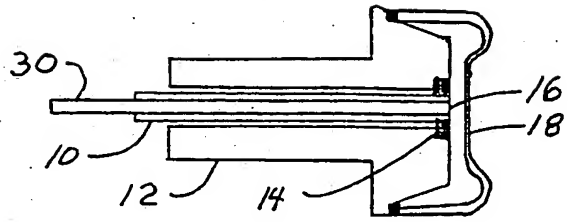


FIG. 1

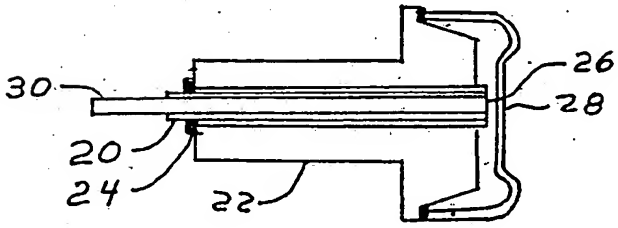


FIG. 2

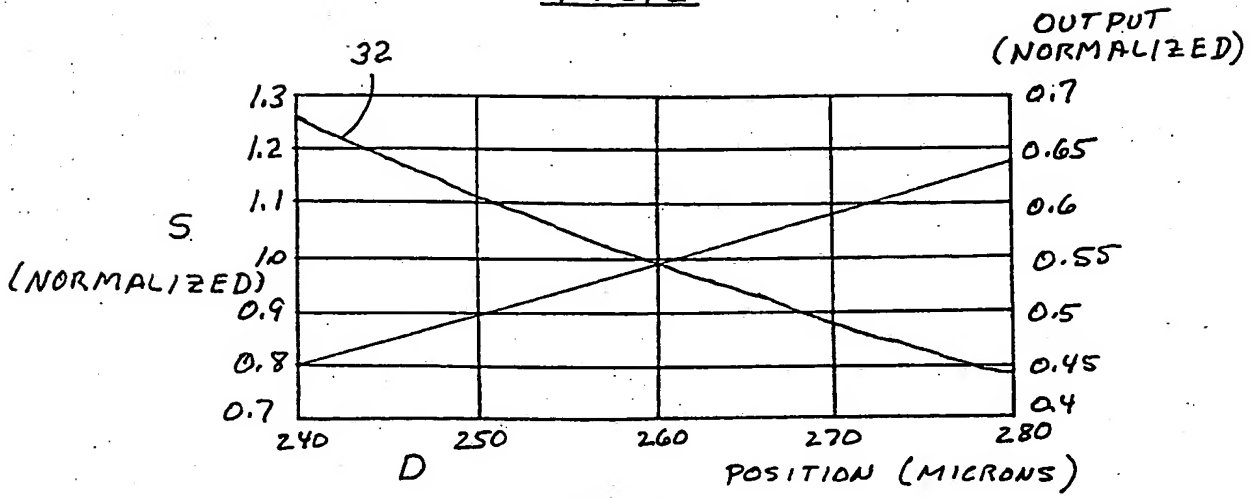


FIG. 3

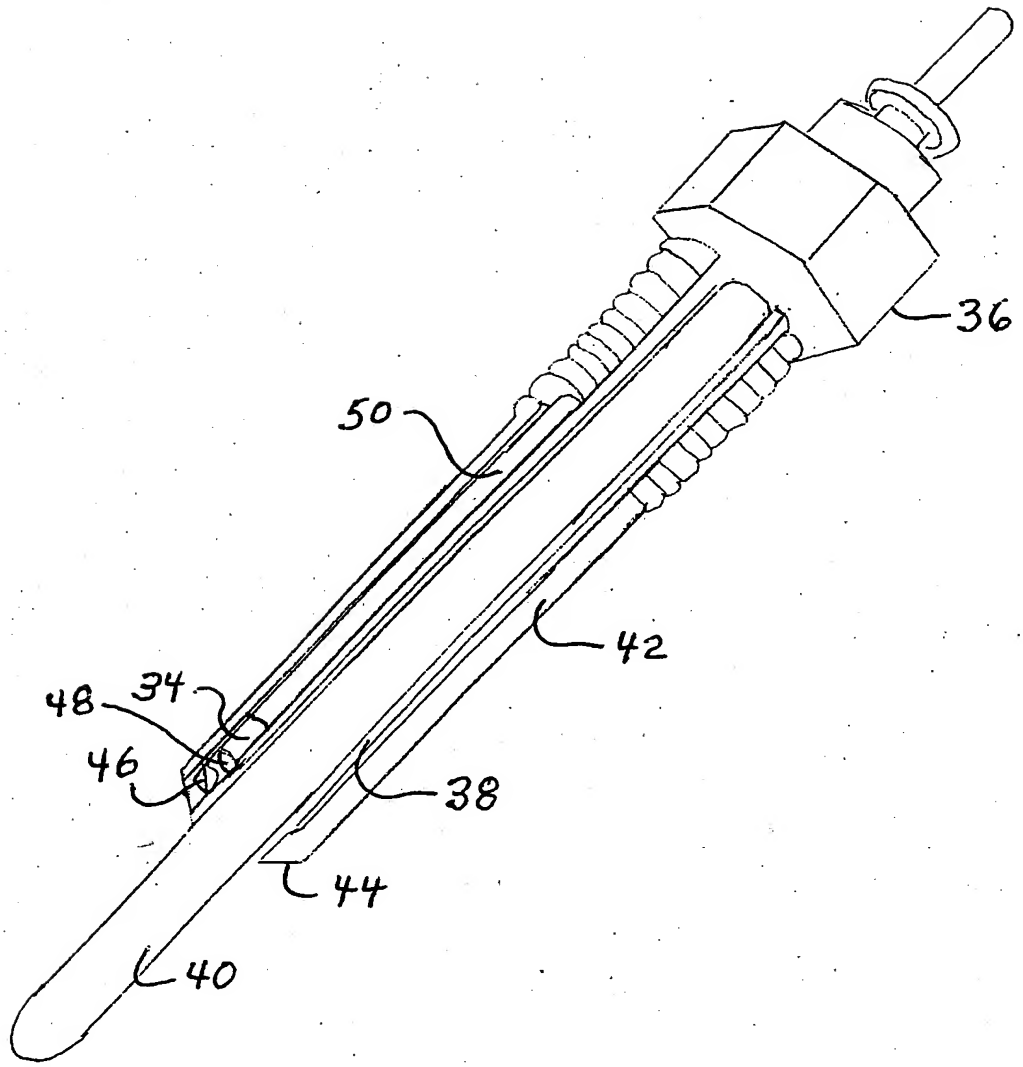


FIG. 4

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 January 2001 (18.01.2001)

PCT

(10) International Publication Number
WO 01/04592 A2

(51) International Patent Classification[7]: G01L

(21) International Application Number: PCT/US00/18683

(22) International Filing Date: 7 July 2000 (07.07.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/143,126 9 July 1999 (09.07.1999) US

(71) Applicants and
(72) Inventors: **WLODARCZYK, Marek, T.** [US/US]; 6865 Vachon Drive, Bloomfield Hills, MI 48301 (US). **POORMAN, Thomas, J.** [—/US]; 1616 N. Hacker Road, Howell, MI 48843 (US).

(74) Agent: **DEIMEN, James, M.**; Suite 300, 320 N. Main Street, Ann Arbor, MI 48104-1192 (US).

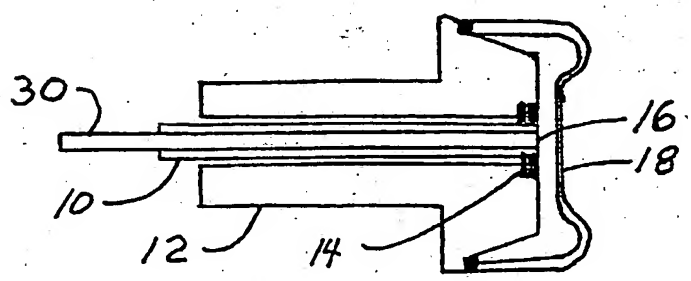
(81) Designated States *(national)*: JP, KR, US.

(84) Designated States *(regional)*: European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published:
— *Without international search report and to be republished upon receipt of that report.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TEMPERATURE COMPENSATED FIBER-OPTIC PRESSURE SENSOR



(57) Abstract: Compensation techniques for high temperature fiber-optic pressure sensors are aimed at correcting for the sensor sensitivity and offset dependence on temperature. By using materials of different thermal expansion coefficients for the sensor diaphragm, housing, ferrule and fiber-bonding compound and by optimizing the length of such parts, the relative distance of the fiber tip with respect to the sensing diaphragm changes in a manner that reduces sensor sensitivity and/or offset dependence on temperature. In the first embodiment, the distance change results from controlled fiber movement within the ferrule and is used to reduce the temperature sensitivity of dynamic sensors. In the second embodiment, an optimum selection of the diaphragm, housing, ferrule and bonding compound materials yields a stable fiber position within the ferrule but, instead, a well defined ferrule movement with respect to the diaphragm in response to temperature changes. The latter technique is used to reduce the offset error of static sensors or the sensitivity error of dynamic sensors.

WO 01/04592 A2

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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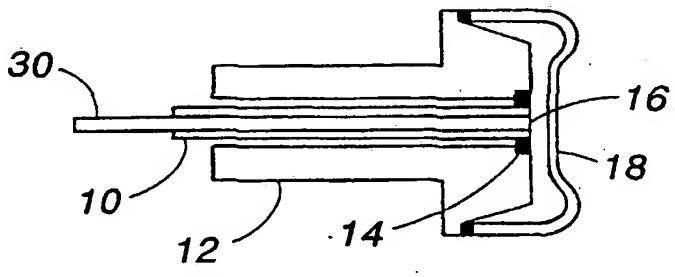

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